THE SERSIC MORPHOLOGIES OF THERMONUCLEAR SUPERNOVAE HOST GALAXIES IN THE NEARBY GALAXIES SUPERNOVA SEARCH DATA, A. M. Pease, L. Strolger*, NGSS Project Team, Western Kentucky University, Department of Physics and Astronomy, Bowling Green, KY 42101, louis.strolger@wku.edu

Originally completed in 2001, the Nearby Galaxies Supernova Search (NGSS) Project surveyed approximately 500 square degrees along the celestial equator to find low redshift supernovae. This survey is intended to measure the rate of supernovae in nearby galaxies, and map out the diversity of galactic environments that produce supernovae of different types. Our current goal is to constrain the ages (partly constrained by morphological types) and metallicities of galaxies which have hosted type Ia supernovae in the duration of the survey, to gain better insights on the progenitor mechanisms for these supernovae. I will present the morphology measures of these host galaxies using a program GALFIT to quantify the light profiles using Sérsic indices. I will compare these indices to galaxies that have not hosted supernovae intending to find a correlation in supernova rates and galaxy properties. Our results should improve the understanding of initial conditions for the event rates of type Ia supernovae in galaxies in the local ($z < 0.1$) universe.